### **GENERAL NOTES**

- 1. THE CONTRACTOR SHALL ATTEND A PRECONSTRUCTION MEETING WITH THE ENGINEER, ALL AFFECTED SUBCONTRACTORS, AND ALL UTILITY OWNERS AND THEIR CONTRACTORS PRIOR TO BEGINNING ONSITE WORK.
- 2. PRIOR TO THE START OF CONSTRUCTION, CONTRACTOR SHALL NOTIFY UULC (UTILITIES UNDERGROUND LOCATION CENTER) AT 1-800-424-5555 FOR THE LOCATION OF EXISTING UTILITIES.
- 3. CONTRACTOR SHALL NOTIFY ALL PUBLIC OR PRIVATE UTILITY COMPANIES 48 HOURS PRIOR TO COMMENCEMENT OF WORK ADJACENT TO EXISTING UTILITY LINES UNLESS PERMIT SPECIFIES OTHERWISE.
- 4. ALL UTILITIES ARE SHOWN IN APPROXIMATE LOCATION AND FOR REFERENCE ONLY. THE CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF A CONFLICT IS DISCOVERED
- 5. CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL PUBLIC UTILITIES IN THE CONSTRUCTION OF THIS PROJECT. ALL MANHOLES, CLEANOUTS, VALVE BOXES, FIRE HYDRANTS, ETC., MUST BE ADJUSTED AS REQUIRED TO MATCH FINISHED GRADES AS SHOWN ON ROADWAY PLANS AND/OR GRADING PLANS. UTILITIES MUST BE MAINTAINED TO PROPER LINE AND GRADE DURING CONSTRUCTION OF THE PROJECT.
- 6. CONTRACTOR TO VERIFY EXISTING INVERTS PRIOR TO CONSTRUCTION. NOTIFY THE ENGINEER OF ANY DISCREPANCY TO THE SHEETS.
- 7. IF DAMAGE OCCURS TO EXISTING STRUCTURES AND/OR UTILITIES BY CONTRACTOR ACTIVITIES THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE APPROPRIATE UTILITY COMPANY FOR REPAIRS AND NOTIFY ENGINEER. CONTRACTOR IS NOT AUTHORIZED TO WORK ON PUBLIC OR PRIVATE UTILITIES UNTIL RECIEVING WRITTEN AUTHORIZATION FROM UTILITY OWNER AND FROM ENGINEER.
- 8. THE CONTRACTOR SHALL IMMEDIATELY REPAIR OR REPLACE ANY PHYSICAL DAMAGE TO PRIVATE PROPERTY NOT IN THE CONTRACT, INCLUDING BUT NOT LIMITED TO FENCES, WALLS, PAVEMENT, GRASS, TREES, AND LAWN SPRINKLER AND IRRIGATION SYSTEMS AT CONTRACTOR'S EXPENSE.
- 9. CONTRACTOR SHALL PROVIDE AND MAINTAIN A SAFE WORKING ENVIRONMENT AND PROVIDE SAFETY TO THE GENERAL PUBLIC TO THE SATISFACTION OF THE ENGINEER.
- 10. CONTRACTOR IS RESPONSIBLE FOR DEVELOPING AND PERMITTING A TEMPORARY SEWER BYPASS PLAN TO MAINTAIN UNINTERRUPTED SERVICE.
- 11. CONTRACTOR TO SEQUENCE CONSTRUCTION AS TO AVOID INTERRUPTION OF WATER AND SANITARY SEWER SERVICE TO SURROUNDING AREAS.
- 12. ALL MATERIALS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
- 13. ALL SANITARY SEWER SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF SEATTLE (COS) STANDARD PLANS, UNLESS OTHERWISE NOTED.
- 14. DEVIATIONS FROM THE COS STANDARD PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

- 15. ALL SALVAGED WATER AND SEWER MATERIAL FROM EXISTING WATER AND SEWER SYSTEM SHALL BE DELIVERED/DISPOSED TO APPROVED FACILITY.
- 16. VERTICAL AND HORIZONTAL DEFLECTIONS SHALL NOT EXCEED MANUFACTURER'S RECOMMENDATIONS OR FITTINGS AND THRUST BLOCKS WILL BE REQUIRED.
- 17. THE CONTRACTOR SHALL COORDINATE INSPECTION AND TESTING WITH THE PROPER AUTHORITIES PRIOR TO BACKFILLING TRENCHES.
- 18. THE CONTRACTOR SHALL OBTAIN UTILITY PERMITS REQUIRED FOR WORK WITHIN THE PUBLIC RIGHT OF WAY.
- 19. SANITARY SEWER AND WATER SHALL BE INSTALLED PER SPACING AND CLEARANCE REQUIREMENTS AS DETAILED IN COS STANDARD PLAN NO. 286 A/B.
- 20. SEE STRUCTURE SHEETS FOR DETAILS REGARDING HANGING OF UTILITIES ON THE BRIDGE STRUCTURE.
- 21. SEE STRUCTURE SHEETS FOR DETAILS REGARDING ABUTMENT WALL PENETRATIONS FOR UTILITIES. EACH UTILITY SHALL BE ENCASED THROUGH THE ABUTMENT WALL.
- 22. CONTRACTOR TO VERIFY UTILITIES LABELED AS "ABANDONED" ARE NOT IN USE PRIOR TO PLUGGING PIPE CONSTRUCTION.
- 23. CONTRACTOR TO VERIFY UTILITIES LABELED "ABANDONED" ARE ACTUALLY ABANDONED AND NO LONGER IN SERVICE.
- 24. CONTRACTOR SHALL NOT OPERATE ANY VALVES ON EXISTING WATER MAINS.

# SANITARY SEWER **CONSTRUCTION NOTES**

- 1. THE CONTRACTOR SHALL PROVIDE TEMPORARY SANITARY SEWER BYPASS WHEN NECESSARY TO COMPLETE WORK. CONTRACTOR SHALL SUBMIT A BYPASS PLAN PRIOR TO COMMENCEMENT OF WORK. THE BYPASS PLAN SHALL BE IMPLEMENTED WHEN
- 2. ALL SANITARY SEWER FLOW SHALL NOT BE INTERRUPTED DURING CONSTRUCTION.
- DIELECTRIC GASKETS SHALL BE USED BETWEEN PIPE AND FLEXIBLE BALL JOINTS AND EXPANSION JOINTS TO PREVENT CORROSION.

# **ELECTRICAL FEED PORTION** OF 6-CONDUIT DUCT BANK **CONSTRUCTION NOTES**

- 1. ACCESS: PROVIDE ADEQUATE CITY LIGHT VEHICULAR (TRUCK) ACCESS TO THE PADS AND VAULTS AT ALL TIMES FOR INSTALLATION AND SERVICE OF ELECTRICAL EQUIPMENT.
- 2. INSPECTION: PHONE STAN KROHN, 615-0673, 48 WORKING HOURS IN ADVANCE OF SETTING THE PADS, VAULTS AND HANDHOLES IN ORDER TO SCHEDULE A FIELD ENGINEER TO OBSERVE THE SETTING. THE FIELD ENGINEER WILL ALSO INSPECT THE SYSTEM CONDUITS. NO INSPECTION WILL BE MADE UNLESS THE SHORING FOR THE EXCAVATION COMPLIES WITH WAC 296-155 PART N. "EXCAVATION, TRENCHING, AND SHORING."
- 3. CONSTRUCTION MATERIALS INSPECTION: SPECIFIC MATERIAL MANUFACTURERS HAVE BEEN APPROVED BY CITY LIGHT. PHONE CITY LIGHT INSPECTOR STAN KROHN (206 615-0673) IN ADVANCE OF PURCHASING OR INSTALLING CONSTRUCTION MATERIALS FOR CITY LIGHT APPROVAL OF MANUFACTURERS. USE CITY LIGHT APPROVED CONDUIT MANUFACTURERS ONLY REFER TO THE ATTACHED SCL MATERIAL STANDARD, 7345.2, FOR A LIST OF CITY LIGHT APPROVED CONDUIT MANUFACTURERS. NOTE: MANUFACTURER LIMITATIONS FOR PVC FEMALE ADAPTERS GIVEN ON THE MATERIAL STANDARD.

#### PRF-CAST VAULTS

- 4. VAULT GROUNDING: FURNISH AND INSTALL FOUR (4) 5/8" BY 8' COPPER CLAD STEEL GROUND RODS IN THE FOUR CORNERS OF THE VAULT. SEAL AROUND THE GROUND RODS ACCORDING TO SCL GUIDELINE U9-7.3
- 5. VAULT LOCATION: MAKE SURE THAT THE VAULT LOCATION WILL COMPLY WITH SCL GUIDELINE U2-14.1, U10-2 AND U9-6, PAGE 2 OF 4, I.E. VAULT MUST BE A MINIMUM OF 6 LEVEL FEET FROM ANY SURFACE OBSTRUCTION OR ANY OTHER BELOW GRADE FACILITIES. IF A VAULT HATCH IS IN AN UNPAVED AREA, A 6-INCH CONCRETE COLLAR MUST BE POURED AROUND THE FRAME. SEE SCL GUIDELINE U2-15.1, ITEM E-5.
- 6. PROVIDE A GEOTECH STUDY OF THE WATER TABLE LEVELS AND SOIL INFORMATION TO VERIFY THAT THE VAULTS CHOSEN WILL WORK WITH RESPECT TO HYDROSTATIC DESIGN. IF THE WATER TABLE IS WITHIN 10 FEET OF THE SURFACE OF THE GROUND, THE HYDROSTATIC DESIGN OF THE VAULTS SHALL BE REVISED AND PANEL VAULTS MAY BE REQUIRED INSTEAD OF THE RING VAULTS IDENTIFIED IN THIS DOCUMENT.
- 7. VAULT INSTALLATION: INSTALL THE VAULTS PER SCL GUIDELINES U2-14.1, U2-14.2, & U2-15.1
- 8. ALL SEATTLE CITY LIGHT (SCL) WORK SHALL CONFORM TO THE FOLLOWING SCL CONSTRUCTION STANDARDS: U2-10, "INSTALLATION DETAILS FOR ELECTRIC CONDUIT IN PUBLIC RIGHT-OF-WAY: U2-11, "INSTALLATION OF NONMETALLIC CONDUIT CONCRETE AND SAND ENCASEMENT; U2-11.2, "REINFORCEMENT OF CONCRETE ENCASED DUCT RUNS": U2-11.40 "MANDRELING AND CLEANING OF DUCTS AND CONDUIT"; U7-10, "CONDUIT RISERS ON POLES"; U7-10.2, "PRIMARY CONDUIT RISER POLE BASE DETAIL": U7-10.9. "GROUNDING CONDUIT RISERS ON POLES"; U10-5.2, "PAD CONSTRUCTION FOR PAD MOUNTED SWITCHGEAR, MINIMUM CLEARANCES" AND ALL OTHER APPLICABLE STANDARDS.

- 9. MINIMUM OF 12" EARTH SEPARATION SHALL BE MAINTAINED BETWEEN THE SIDES AND BOTTOM OF SCL ENCASED DUCTS AND OTHER DUCTED UTILITIES. NO DUCTS SHALL BE PLACED DIRECTLY ABOVE SCL ENCASED DUCTS. NO HANDHOLES, VAULTS OR OTHER UTILITY EQUIPMENT SHALL BE INSTALLED ABOVE SCL DUCTS. SCL DUCTS & VAULTS SHOULD BE INSTALLED WITH SUFFICIENT CLEARANCE TO THE PROPERTY LINE TO ALLOW FOR THEIR PROPER MAINTENANCE OR REPLACEMENT WITHOUT WORKING ON PRIVATE PROPERTY. THIS DESIGN CLEARANCE IS DEFINED IN SCL CONSTRUCTION GUIDFLINES U2-10. WITHOUT PROPER CLEARANCE TO THE PROPERTY LINE, SCL REQUIRES AN EASEMENT ON PRIVATE PROPERTY
- 10. EXCAVATE TRENCH TO PROPER DEPTH AND GRADE. MINIMUM GRADE SHALL BE +/- 3-INCHES PER 100 FEET FOR DRAINAGE BETWEEN TERMINATIONS. VERTICAL CHANGES IN GRADE (SLOPE) SHALL BE CONSTRUCTED WITH A MINIMUM BEND RADIUS OF 10 FEET. FOR A HORIZONTAL CHANGE IN DIRECTION, THE CONDUIT MAY BE COLD-FORMED TO MINIMUM BEND RADII OF 30 FFFT FOR 5-INCH CONDUIT AT ABOUT 68 DEGREES F PROVIDED THE DEFLECTION DOES NOT EXCEED 15 DEGREES. FOR A HORIZONTAL CHANGE IN DIRECTION EXCEEDING 15 DEGREES, THE SWEEP SHALL BE EFFECTED WITH 12.5-FOOT MINIMUM RADIUS RIGID STEEL CONDUIT.
- 11. WHEN CONDUITS ENTER PERPENDICULAR TO EACH OTHER AT A CORNER OF A VAULT, MANHOLE OR HANDHOLE, THEY SHALL ENTER AT DIFFERENT ELEVATIONS, I.E. ONE SHALL BE OFFSET TO THE OTHER. THE ENCASED CONDUIT SHALL TERMINATE TO 1/2 INCH OF PERPENDICULAR, HORIZONTAL AND VERTICAL. FOR THE 5 FEET OF MINIMUM CONCRETE ENCASEMENT.
- 12. CONDUIT TO BE TERMINATED IN VAULT, HANDHOLE OR MANHOLE MAY EITHER BE INDIVIDUALLY GROUTED TO THE STRUCTURE WALL OR A BANK OF CONDUITS MAY BE ENCASED TO THE WALL IN A CONCRETE ENVELOPE. SUCH CONCRETE ENCASEMENT SHALL BE FINISHED SMOOTH ON THE INSIDE OF
- 13. TRENCH BACKFILL AND SURFACE RESTORATION SHALL BE AS SHOWN ON DRAWINGS.
- 14. ALL CONDUIT SHALL BE SEALED WITH STANDARD PLUGS.
- 15. ONE 2600 LB CALIBRATED PULLING TAPE SHALL BE PLACED PER SECTION WITH INITIAL CONSTRUCTION. ALL REMAINING CONDUITS SHALL HAVE PULLING ROPE WITH A MINIMUM OF 600 LB BREAKING STRENGTH. PULLING ROPES SHALL BE TIED OFF AT VAULTS.
- 16. ONE CONDUIT IN EACH DUCT BANK, AND EVERY CONDUIT NOT PART OF A DUCT BANK SHALL CONTAIN A DETECTABLE UNDERGROUND MARKING TAPE, RED-COLORED, LINETEC TYPE A OR FOUAL
- 17. MINIMUM OF 36" COVER SHALL BE MAINTAINED BETWEEN ENCASED DUCTS AND FINAL GRADE, EXCEPT AT INTERSECTIONS WHERE THE COVER SHALL BE 48".
- 18. CONTRACTOR SHALL CALL ONE CALL LOCATE AT 1-800-424-5555 A MINIMUM OF TWO WORKING DAYS BEFORE DIGGING FOR LOCATION OF UTILITIES IN THE CONSTRUCTION AREA.
- 19. SCL INSPECTOR SHALL BE PRESENT DURING INSTALLATION OF THE CONDUITS. ALL CONDUITS AND VAULT INSTALLATIONS SHALL BE INSPECTED AND ACCEPTED BY SCL INSPECTOR. ANY CONDUIT OR VAULT NOT ACCEPTED BY SCL SHALL BE REMOVED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
- 20. MAINTAIN & PROVIDE AS-BUILT DRAWINGS.

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FED. AID No. TIGERII-BRM-STPUL-1491(002)

300197 PROJECT No. \_ 32-24-4-22 SURVEY No. \_

MAINTENANCE DIVISION No. 3

KING COUNTY DEPT. OF TRANSPORTATION HAROLD TANIGUCHI, DIRECTOR

SOUTH PARK BRIDGE #3179

REPLACEMENT

King County

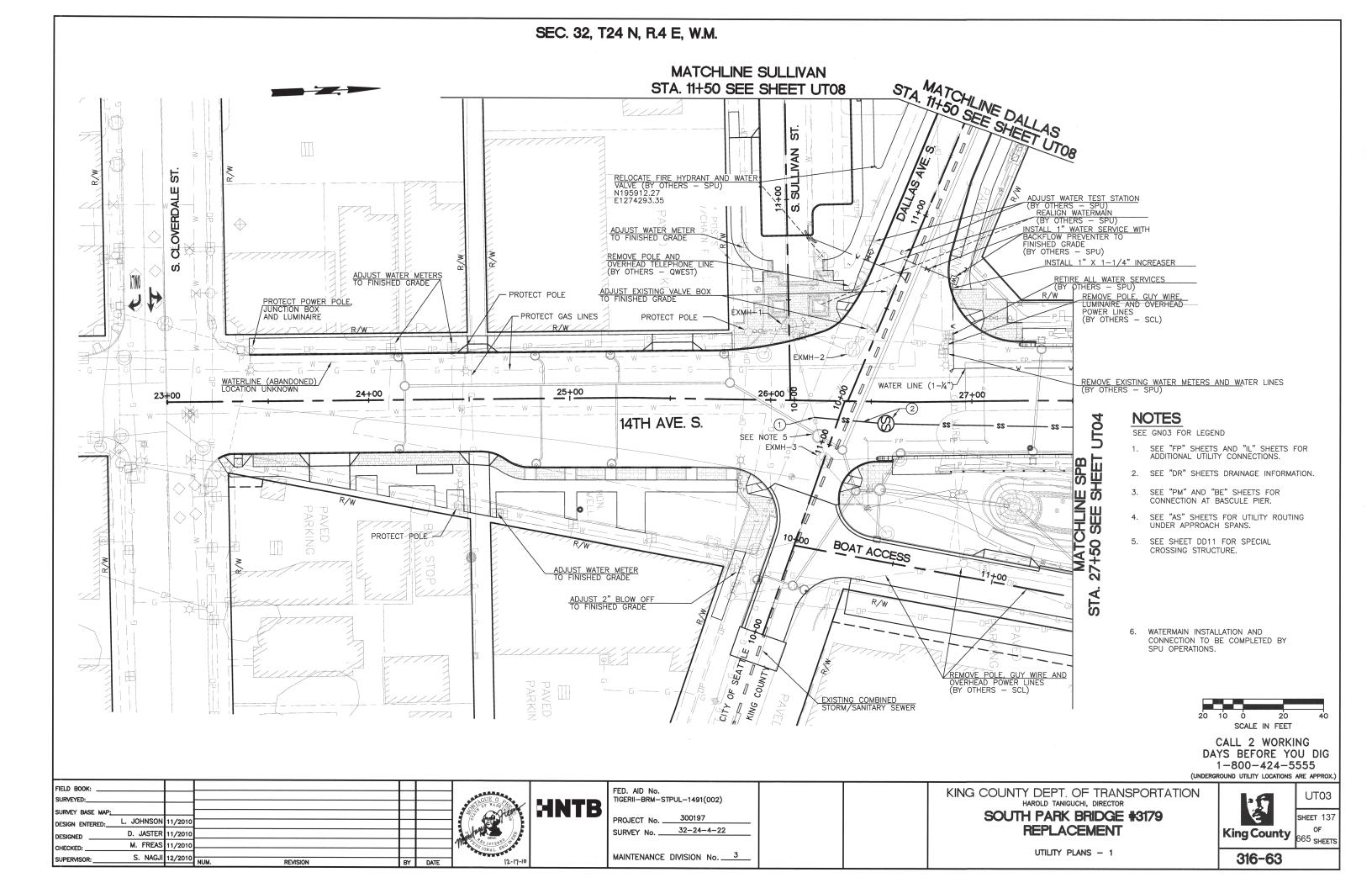
UTILITY NOTES - 1

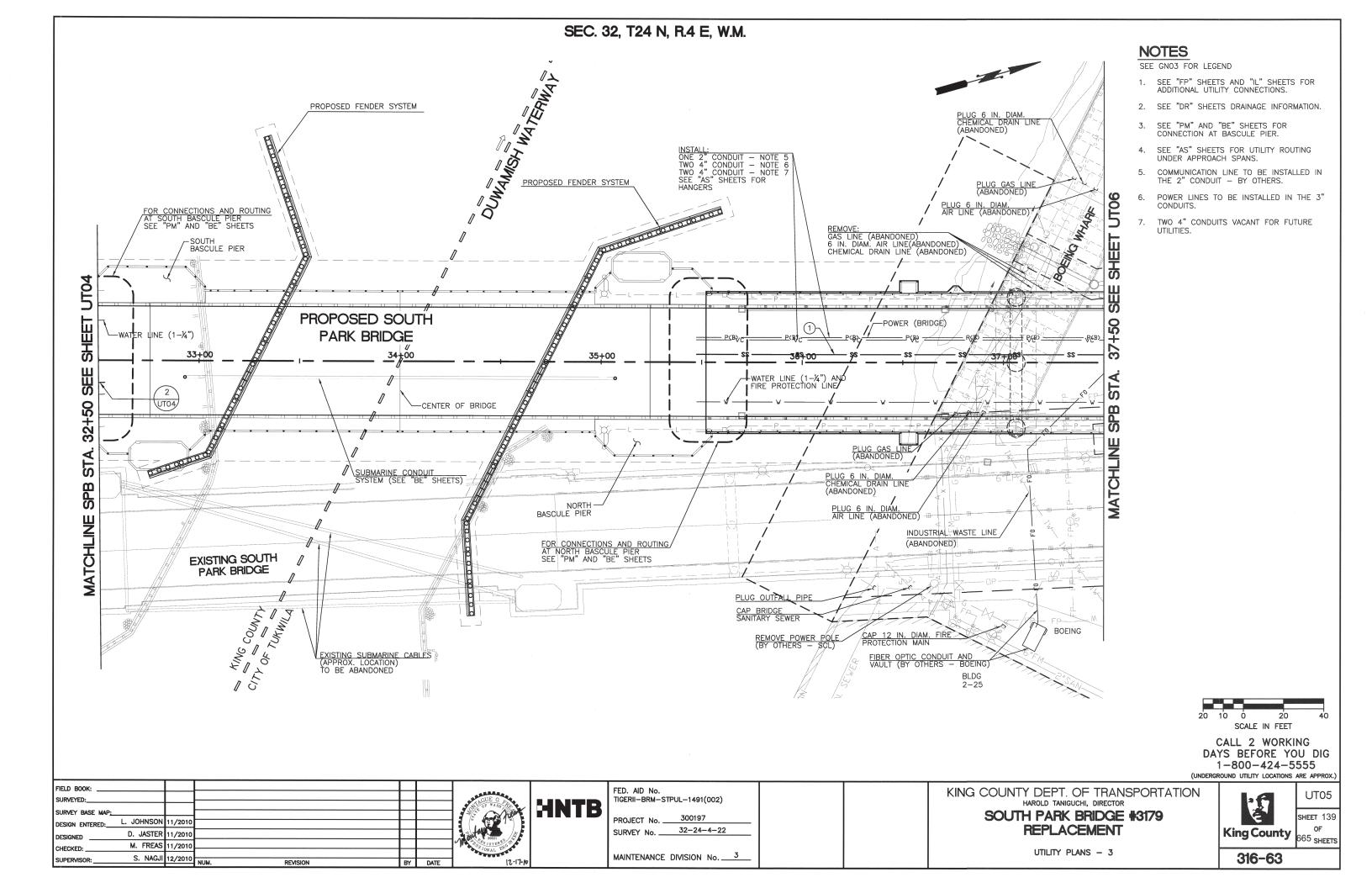
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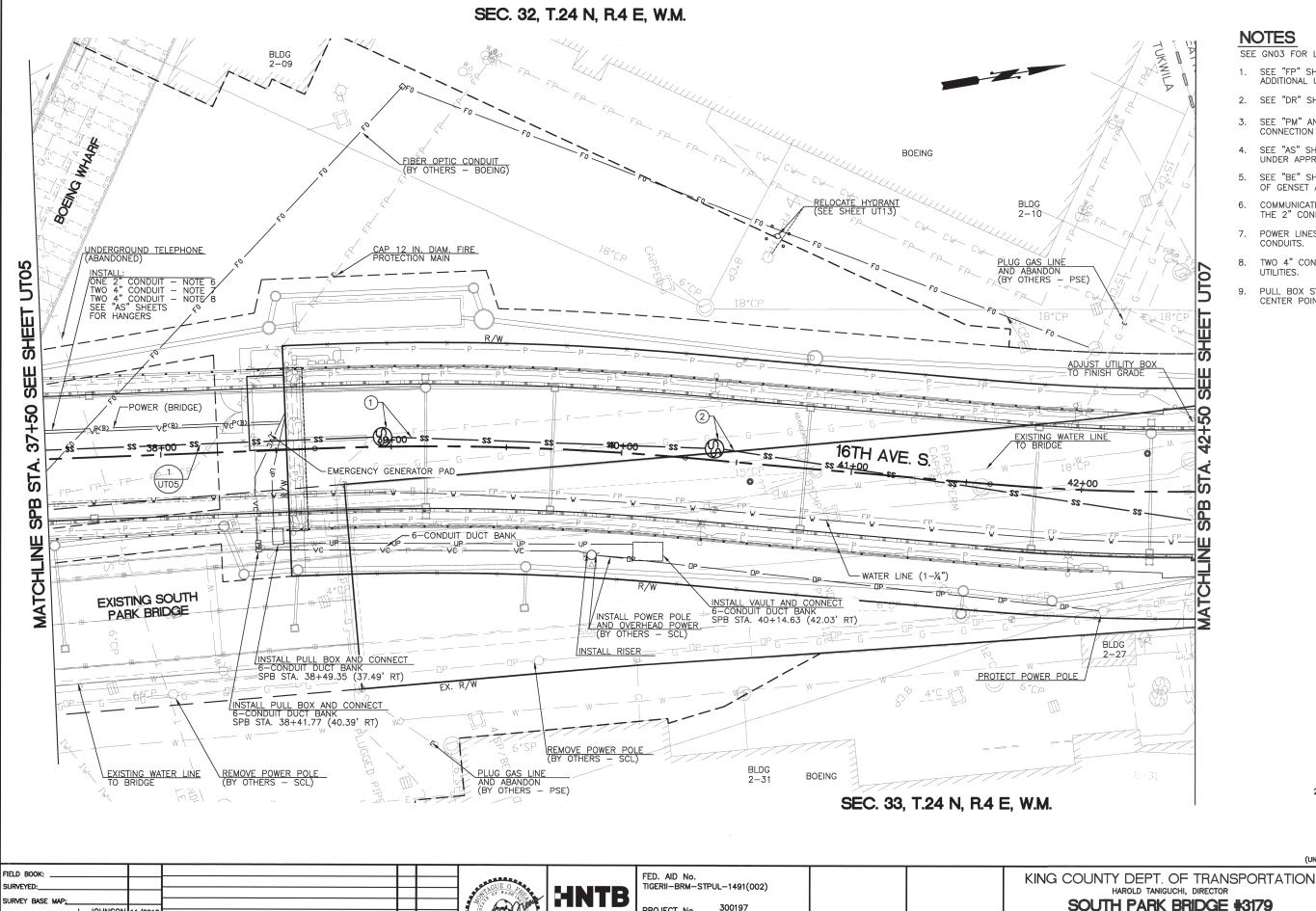
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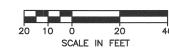






SEE GN03 FOR LEGEND

- 1. SEE "FP" SHEETS AND "IL" SHEETS FOR ADDITIONAL UTILITY CONNECTIONS.
- 2. SEE "DR" SHEETS DRAINAGE INFORMATION.
- SEE "PM" AND "BE" SHEETS FOR CONNECTION AT BASCULE PIER.
- SEE "AS" SHEETS FOR UTILITY ROUTING UNDER APPROACH SPANS.
- SEE "BE" SHEETS FOR THE LOCATION OF GENSET AND FUEL TANK.
- COMMUNICATION LINE TO BE INSTALLED IN THE 2" CONDUIT BY OTHERS.
- 7. POWER LINES TO BE INSTALLED IN THE 3"
- 8. TWO 4" CONDUITS VACANT FOR FUTURE UTILITIES.
- PULL BOX STATION AND OFFSETS ARE TO CENTER POINT OF VAULT.



CALL 2 WORKING DAYS BEFORE YOU DIG 1-800-424-5555 (UNDERGROUND UTILITY LOCATIONS ARE APPROX.

**UT06** 

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MAINTENANCE DIVISION No. \_\_\_3

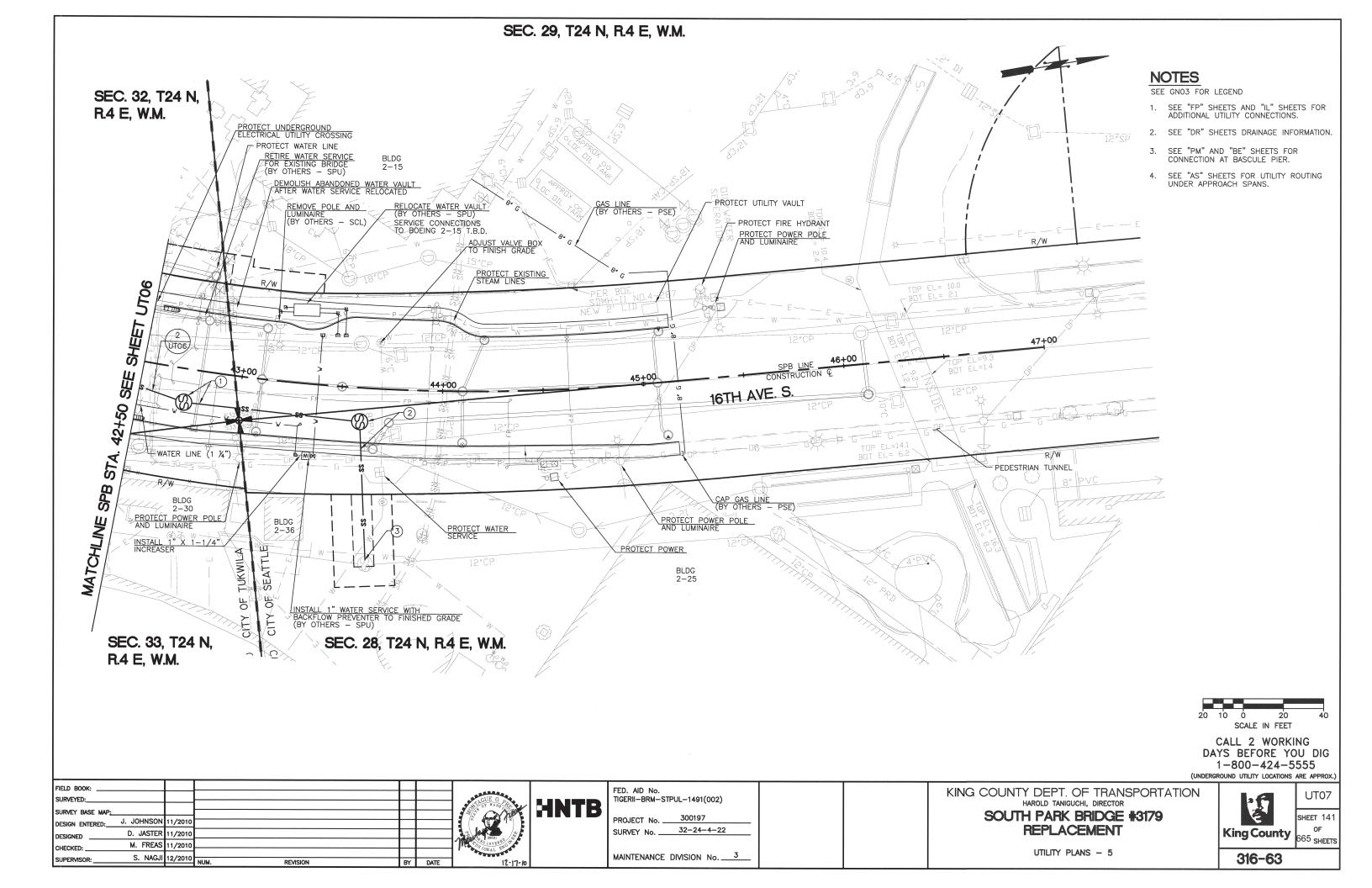
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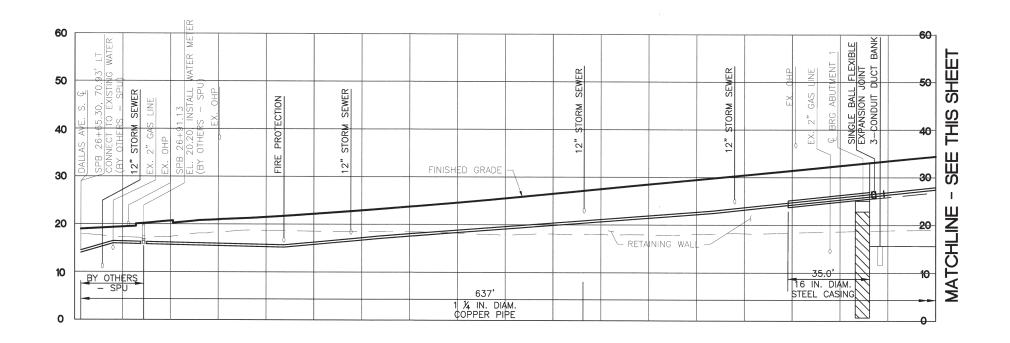
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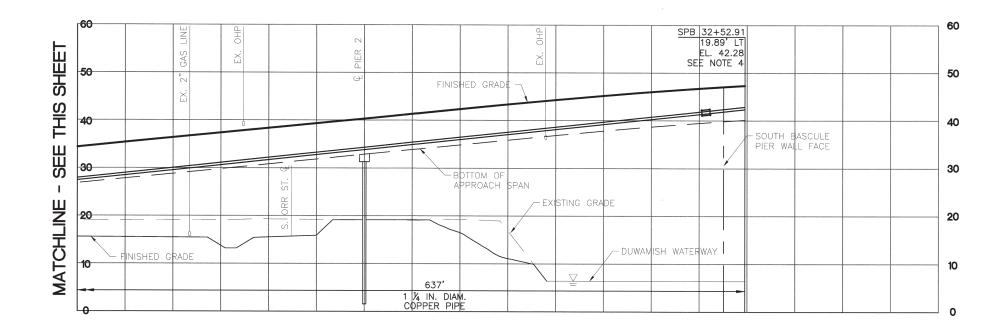
SOUTH PARK BRIDGE #3179

**King County** 

UTILITY PLANS - 4







### **NOTES**

- 1. UTILITIES AT BOEING TO BE SUBJECT TO CHANGE (NOT IN CONTRACT):
  - a. GAS LINE REROUTE
  - b. FIBER OPTIC REROUTE
  - c. WATER LINE CONNECTIONS FROM RELOCATED WATER
- 2. SEE "FP" SHEETS AND "IL" SHEETS FOR ADDITIONAL UTILITY CONNECTIONS.
- SEE "DR" SHEETS FOR DRAINAGE INFORMATION.
- 4. SEE "PM" AND "BE" SHEETS FOR CONNECTION AT BASCULE PIER.
- 5. SEE "AS" SHEETS FOR UTILITY ROUTING UNDER APPROACH SPANS.

CALL 2 WORKING DAYS BEFORE YOU DIG 1-800-424-5555 (UNDERGROUND UTILITY LOCATIONS ARE APPROX.)

KING COUNTY DEPT. OF TRANSPORTATION HAROLD TANIGUCHI, DIRECTOR SOUTH PARK BRIDGE #3179

REPLACEMENT

**King County** 665 SHEETS

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SHEET 145

UTILITY PROFILE - WATERLINE SOUTH

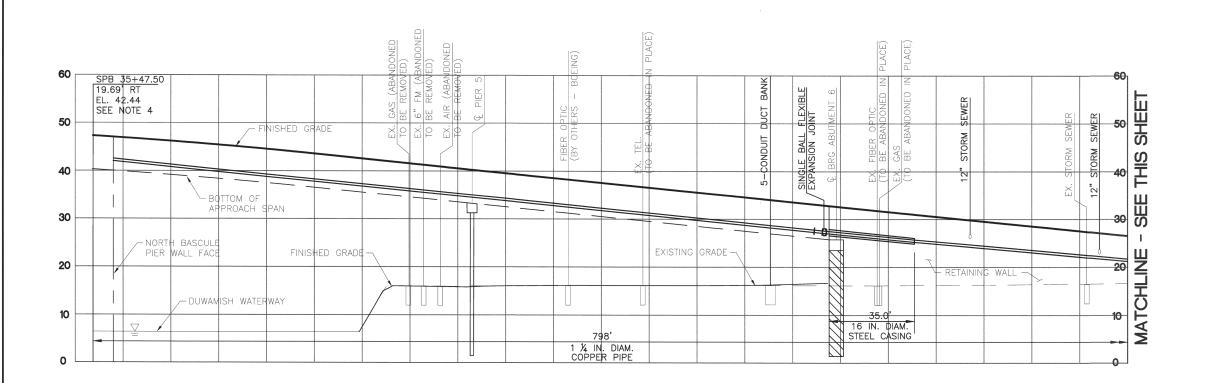
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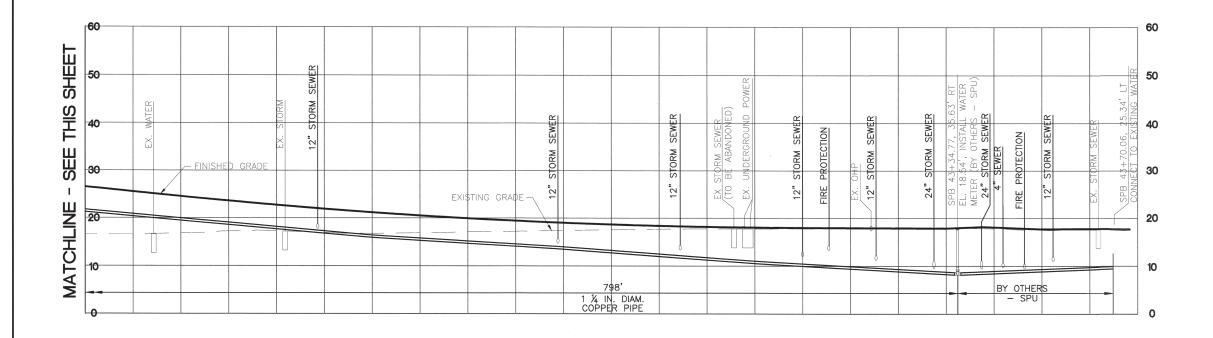
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FED. AID No. TIGERII-BRM-STPUL-1491(002) 300197 PROJECT No. \_\_\_\_ 32-24-4-22 SURVEY No. \_\_ MAINTENANCE DIVISION No. \_\_\_3





FIELD BOOK:

DESIGNED

CHECKED:

SUPERVISOR:

M. FREAS 12/2009

S. NAGJI 01/2010 NUM.

REVISION

## **NOTES**

- UTILITIES AT BOEING TO BE SUBJECT TO CHANGE (NOT IN CONTRACT):
  - a. GAS LINE REROUTE
  - b. FIBER OPTIC REROUTE
  - c. WATER LINE CONNECTIONS FROM RELOCATED WATER
- 2. SEE "FP" SHEETS AND "IL" SHEETS FOR ADDITIONAL UTILITY CONNECTIONS.
- 3. SEE "DR" SHEETS FOR DRAINAGE
- 4. SEE "PM" AND "BE" SHEETS FOR CONNECTION AT BASCULE PIER.
- 5. SEE "AS" SHEETS FOR UTILITY ROUTING UNDER APPROACH SPANS.

CALL 2 WORKING DAYS BEFORE YOU DIG 1-800-424-5555 (UNDERGROUND UTILITY LOCATIONS ARE APPROX.)

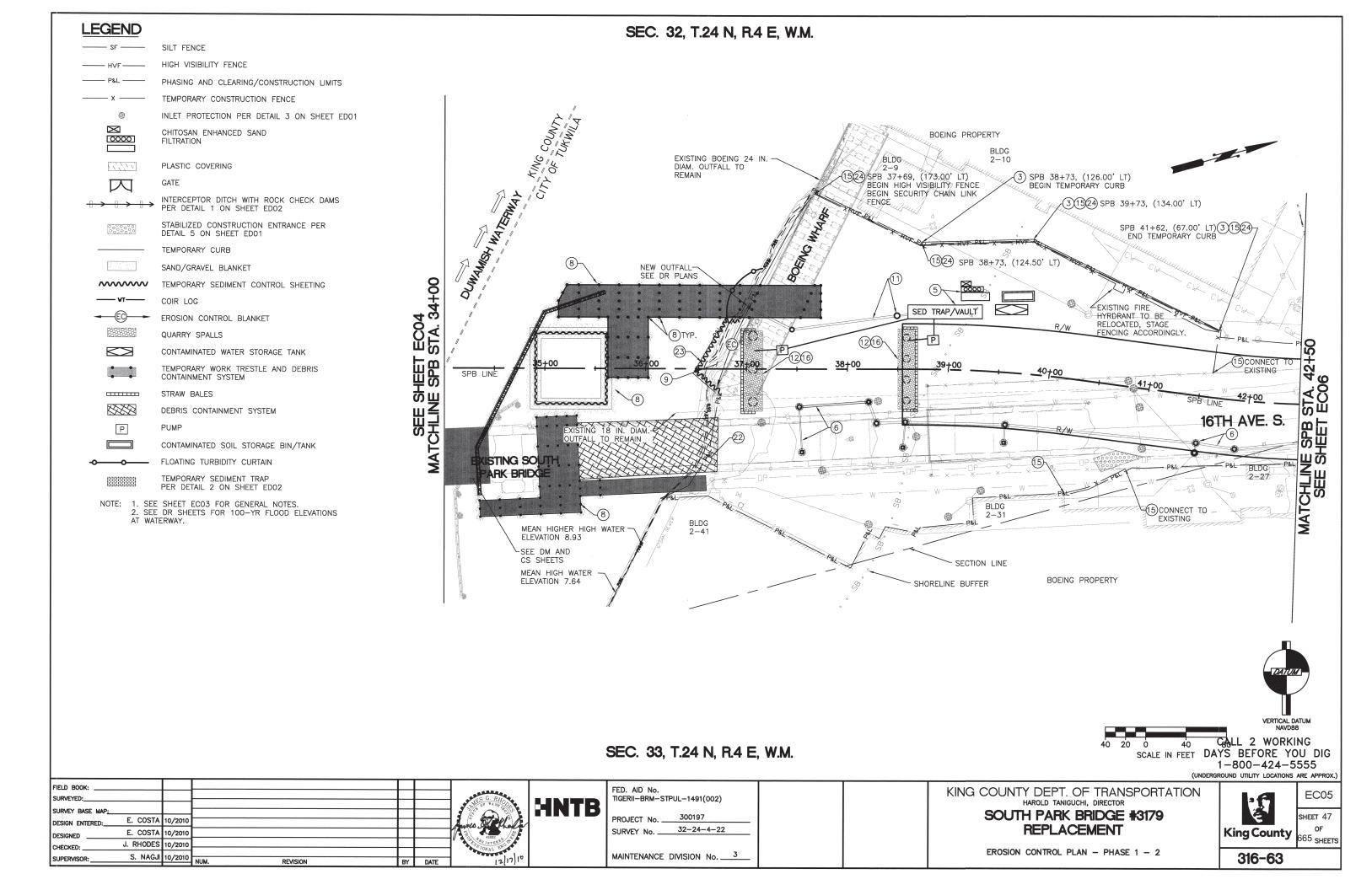
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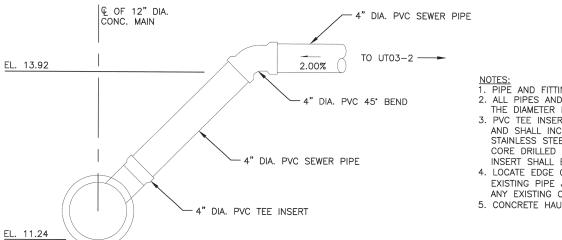
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FED. AID No. KING COUNTY DEPT. OF TRANSPORTATION TIGERII-BRM-STPUL-1491(002) HAROLD TANIGUCHI, DIRECTOR SOUTH PARK BRIDGE #3179 SURVEY BASE MAP: 300197 L. JOHNSON 06/2009 PROJECT No. \_\_\_ DESIGN ENTERED: **REPLACEMENT** 32-24-4-22 SURVEY No. \_\_ D. JASTER 06/2009

> UTILITY PROFILE - WATERLINE NORTH MAINTENANCE DIVISION No. \_\_\_3







NOTES:

1. PIPE AND FITTINGS SHALL BE PVC PER ASTM D 3034 SDR 35

2. ALL PIPES AND FITTINGS ARE TO BE THE SAME DIAMETER.
THE DIAMETER IS TO BE SPECIFIED ON THE PLANS.

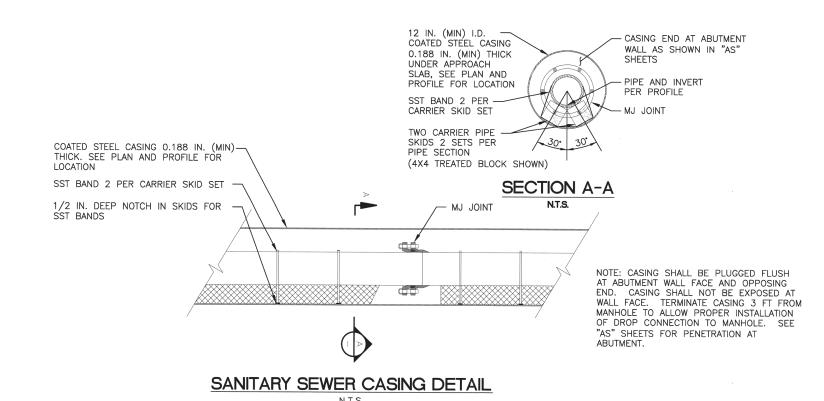
3. PVC TEE INSERTS SHALL BE BY "INSERT A TEE" OR EQUAL AND SHALL INCLUDE RUBBER SLEEVE, PVC ADAPTER HUB AND STAINLESS STEEL BAND. INSERT SHALL BE INSTALLED IN A CORE DRILLED HOLE PER MANUFACTURER'S INSTRUCTIONS. INSERT SHALL BE FLUSH WITH THE INSIDE WALL OF THE MAIN.

 LOCATE EDGE OF CORE DRILLED HOLE 1'-0" MINIMUM FROM EXISTING PIPE JOINT AND 2'-0" MINIMUM FROM THE EDGE OF ANY EXISTING OR NEW CONNECTIONS.

5. CONCRETE HAUNCHING IS TO BE CLASS 5 (1 1/2) CONCRETE.

### **VERTICAL CONNECTION**

N.T.S.



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FED. AID No. TIGERII-BRM-STPUL-1491(002)

PROJECT No. 300197

SURVEY No. 32-24-4-22

MAINTENANCE DIVISION No. \_\_\_3

KING COUNTY DEPT. OF TRANSPORTATION HAROLD TANIGUCHI, DIRECTOR

SOUTH PARK BRIDGE #3179 REPLACEMENT

UTILITY DETAILS - 2

King County
<b>.</b>

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665 SHEETS